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PATENT ABSTRACTS OF JAPAN

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(71)Applicant : SANKYO SEIKI MFG CO LTD

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(72)Inventor : NOSE TAMOTSU
KANEBAKO HIDEKI

(54) DYNAMIC PRESSURE BEARING DEVICE

(57)Abstract:

PURPOSE: To dimensionally control a stable runout characteristic in a thrust direction with a small shaft loss and without any need of much stringency.

CONSTITUTION: This device is provided with a fixed member 1 having a recess with one end closed and the other end open, a rotating shaft 3 inserted in the recess of the member 1, a thrust bearing to support the shaft 3 in a thrust direction and form the bottom section 1b of the recess, and radial bearings 2 and 2 to support the shaft 3 in a radial direction. Each bearing is filled with a non-compressive fluid 14 at the slide surface. Also, a large diameter section 23 having an outer diameter r_2 larger than the diameter r_3 of the slide surface of the radial bearings 2 is formed at a position inside the bearings 2a along the radial direction of the shaft 3. Furthermore, a small gap section A is formed between the section 23 and a fixed member 1a faced thereto, and space 25 for housing the section 23 is filled with the fluid 14.

